18BOP03/14BOP03

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2018
(First Semester)

Branch-**BOTANY**

APPLIED MICROBIOLOGY

Time: Three Hours Maximum: 75 Marks

SECTION-A (10 Marksl

Answer **ALL** questions
ALL questions carry **EQUAL** marks (10x1 = 10)

1 Which of the following is used for the proper maintenance and preservation of pure cultures?
(i) Periodic transfer to fresh media
(ii) Preservation by overlaying cultures with mineral oil
(iii) Preservation by lyophilization (iv) all of the above

2 Suspension cultures consists of cells and cell aggregates, growing dispersed in
(i) liquid medium (ii) solid nutrient medium
(iii) solid or liquid medium (iv) none of these

3 Actinomycetes are
(i) Gram negative, aerobic (ii) gram negative, anaerobic
(iii) Gram positive, anaerobic (iv) Gram positive, aerobic

4 Virion is
(i) Nucleic acid of virus (ii) Protein of virus
(iii) Antiviral agent (iv) Completely assembled virus outside host

5 Bacterial flagella is made up of
(i) microtubules (ii) tubulin
(iii) flagellin (iv) spinin

6 The region where bacterial genome resides is termed as
(i) nucleus (ii) cytoplasm
(iii) nucleotide (iv) ribosome free region

7 Which of the following are rich source of protein?
(i) *Spirulina* and *Chlorella* (ii) *Chlorella* and *Scenedesmus*
(iii) *Scenedesmus* (iv) all of the above

8 Fermentation which is carried by yeast is called
(i) pyruvic fermentation (ii) acrylic fermentation
(iii) lactic acid fermentation (iv) alcoholic fermentation

9 The undesirable change in a food that makes it unsafe for human consumption is referred as
(i) food decay (ii) food spoilage
(iii) food loss (iv) all of the above

10 *Clostridium perfingens* poisoning is associated with
(i) meat products (ii) vegetables
(iii) canned foods (iv) fisli products

SECTION - B (35 Marks)

Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 7 = 35)

Write notes on methods of sterilization.

OR

Explain about pour plate method.

Evaluate microbial communities in soil.

OR

Illustrate microbial mineralization.

How will you choose the nutrient media for bacterial growth?

OR

Discuss on control measures of influenza.

Produce the media for industrial microbiology.

OR

How will you produce SCP?

Analyze the food spoilage.

OR

Assume the food spoiling microorganisms.

SECTION - C (30 Marks!

Answer any **THREE** Questions
ALL Questions Carry **EQUAL** Marks (3 x 1 0 = 30)

Enumerate the principle and working mechanism of SEM.

Elucidate about microbial decomposition.

Classify Bergey's system of bacterial classification.

Asses recent developments in industrial microbiology.

How will you develop food safety measures and quality control?

Z-Z-Z END